REMARKS

Favorable reconsideration of this application is respectfully requested.

In the outstanding Office Action, each of the independent claims was rejected under 35 U.S.C. 103(a) over U.S. Patent No. 5,452,784 to Miyoshi et al. (Miyoshi) in view of U.S. Patent No. 6,585,095 to Savoyard et al. (Savoyard)[1]. Claims 6-7 and 9-10 were rejected over Miyoshi and Savoyard, in view of U.S. Patent No. 6,671,835 to Tanaka et al. (Tanaka). These rejections are respectfully traversed.

Initially, the Applicant would note that any rejection based on the combination proposed by the Office (to use the separator plate of Savoyard in the device of Miyoshi) is fundamentally improper.

Miyoshi is directed to providing a multilayered ceramic thin film on one surface of each driving and driven plate in a frictional engagement apparatus. The mate surface for each of the multilayered ceramic thin films is an opposing plate surface having a wet frictional material bonded thereto.

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[1] Although the stated grounds of rejection refer to Baden et al. ('563), the Examiner's discussion evidently refers to a newly cited reference to Savoyard et al.

Miyoshi sets forth a number of advantages to be obtained from the use of the multilayered ceramic thin film in this manner. For example, Miyoshi found that hot spots and abnormal abrasion of the wet frictional material were produced in a driven steel plate provided without a ceramic thin film. However, with a multilayer ceramic thin film provided, no problem was found in friction coefficients and surface state (cracks, separation, falling off, etc), while the surface became lustrous as if it had been lapped (see Miyoshi, Col.8, lines 20-30). Further, use of the multilayer ceramic thin film resulted in a 20 to 40% increase in static and dynamic friction coefficients (Miyoshi, Col.7, lines 1-2).

If a separator plate were inserted between the adjoining plates of Miyoshi, as suggested by the Office, frictional contact between the multilayered ceramic thin film and the opposing frictional material surface would be effectively prevented. As a result, the advantages provided by the multilayered ceramic thin film would be negated, thus defeating the intended function of the Miyoshi device.

Applicant would also note that respective apparatuses of Miyoshi and Savoyard are fundamentally different in design. For example, the separator plates of Savoyard are disposed between friction plates having a frictional material bonded to each side thereof, while the plates of Miyoshi have a frictional material bonded to one side only.

Still further, in the Applicant's invention, adjoining friction/separator plate pairs are splined in the same manner, and therefore rotate together even when the clutch is not engaged. By contrast, the separator and friction plates of Savoyard have an opposite spline arrangement, that is, the separator plates of Savoyard are externally splined while respective adjoining friction plates are internally splined. Therefore, they rotate together only when the clutch is engaged.

Accordingly, the skilled practitioner, without the benefit of impermissible hindsight in view of Applicant's present teachings, would have had no motivation whatsoever to modify Miyoshi to include separator plates as proposed by the Office. The proposed combination of Savoyard with Miyoshi is therefore clearly improper, and the rejection under § 103(a) cannot be sustained.

In addition to the impropriety of the rejection as discussed above, Applicant would further note that the cited references are further deficient in that they fail to disclose or suggest (1) communication grooves formed on a surface of each externally splined friction plate facing a said externally splined separator plate or on a surface of each externally splined separator plate facing an externally splined friction plate, as set forth in Claim 3, (2) a plurality of internally splined annular separator plates, as set forth in Claims 4 and 12, and (3) an engagement portion having an annular separator plate being splined to rotate together with a respective annular friction plate, as set forth in Claim 13. Tanaka cannot supply the deficiencies of Miyoshi and Savoyard.

Applicant respectfully submits that each of the independent claims should now be allowed, as, therefore, should their respective dependents.

A Notice of Allowance is respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

MWS/PLS:sjk

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